REMARKS

It is noted that, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Claims 1-20 are all the claims presently pending in the application.

Claims 12-14,16, and 17 have been withdrawn by the Examiner from consideration. The Examiner objects to claims 10 and 18-20 as allegedly failing to further limit the claimed subject matter.

Claims 1-7, 10, 11, 15, and 18 stand rejected under 35 U.S.C. §103(a) as unpatentable over US Patent 6,456,714 to Shima et al., further in view of US Patent 6,496,862 Akatsu et al. Claims 8, 9, 19, and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shima, further in view of US Patent 4,747,130 to Ho.

The constructive withdrawal, objection, and prior art rejections are respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

As described in the specification and claimed, for example by claim 1, the present invention is directed to a network switching system, including a gateway, one or more extension nodes, and a serial bus interconnecting the gateway and the one or more extension nodes. Each of the extension nodes is identified with a unique physical identifier *and* selectively (potentially) identified with a unique telephone number comprising at least one of a simplified exchange number and an actual telephone number. Stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between a first extension node and a second extension node.

At least one of the extension nodes includes a control/memory unit for storing physical identifiers and telephone numbers of the gateway node and extension nodes

and for controlling the network, an asynchronous interface, for selecting the extension node and controlling a switching timing, connected with the control/memory unit, a rate conversion unit for converting a data rate of the stream data in the network into that in the outside line, or for converting a data rate of stream data in the outside line into that of the network switching system, and an isochronous interface, for transmitting and receiving the stream data, connected with the rate conversion unit. Because the extension node telephone numbers are stored in the memory units, the extension nodes can transmit and receive stream data from outside telephone numbers and from telephone numbers of other extension nodes.

In contrast, as clearly described at lines 5-7 of column 5, the telecommunications system taught in Shima has a single telephone number for the entire multimedia network 100 attached to the peripheral device 230. There is no suggestion in Shima to be able to dial up a unique one of the plurality of telephone-equipped units and certainly no suggestion to be able to communicate between two of these telephone-equipped units within the multimedia network.

An advantage of the present invention is that it provides a low cost method to incorporate a telephone system into the existing capability of the serial IEEE 1394 bus in the environment of a home entertainment system, including the feature that a plurality of nodes in the home entertainment system can each have a unique telephone number. Thus, the present invention provides a miniature telephone system for a home environment that has switching capability between extension nodes as well as outside calls, using the infrastructure of a home entertainment system.

The present invention thereby provides the advantage of low cost switching equipment for telephone voice and or video, in addition to its customary deployment as a distribution system for interconnecting computers and computer peripheral devices such as printers or audio/video system interconnections, while simultaneously taking advantage of the capability for reducing the number of interconnect wires and providing good quality audio, along with a "plug and play" capability.

II. THE CONSTRUCTIVE ELECTION

The Examiner has made a constructive election and withdrawn from consideration claims 12-14, 16, and 17.

Applicant submits again that such constructive withdrawal of claims would be improper, unless the Examiner provides, on the record, a proper restriction under MPEP§806.05 for a combination/subcombination. It is further noted that, for at least dependent claims 12, 13, 14, their respective parent claim is inherently a generic claim.

Finally, it is noted that the Examiner's position that the scope of claim coverage cannot deviate from the original claim set is not supported by MPEP §2163.05 and §2164.08 or by common patent practice. Applicants typically do not know in advance of filing an application what prior art that will be located during prosecution and usually are required to adjust the scope of coverage during prosecution. The Examiner seems to forget that it is the role of the USPTO to discover the prior art, not the Applicant.

Moreover, in the present Application, the recently-filed RCE provided the mechanism for the Examiner to include the search the plug and play aspect of the present invention in his search. Thus, Applicant submits that it is not reasonable to maintain that the Examiner has an undue burden unless the Examiner provides a reasonable combination/subcombination (or other suitable) restriction requirement.

Therefore, Applicant again respectfully declines at this time to cancel these claims that the Examiner has constructively withdrawn.

III. THE OBJECTION FOR FAILURE TO FURTHER LIMIT SUBJECT MATTER

The Examiner objects to claims 10, 18, 19, and 20 for failure to further limit the subject matter. Applicant respectfully traverses this characterization, since there is clearly a difference in the scope of coverage of these claims, as follows. The preceding claim clearly provides the broader scope that the unique telephone number

is selectively implementable, whereas the dependent claim defines this feature as having actually been implemented so that each extension has its own unique number.

Thus, the present invention defined by the independent claims define that the system has the capability that each extension node potentially has a unique telephone number, in addition to the unique physical identifier associated with the node, in that the memory capability in the gateway and each extension node is available so that the extension node has its own unique telephone number.

In this broader definition of the independent claims, some nodes may have the same telephone number, may have no telephone number and instead be associated with a simplified switching number, such as would be used in an intercom system or telephone extension number configuration, or may have both a telephone number and a simplified switching number. Moreover, as shown in Figure 13, the gateway of the present invention allows calls to unique telephone numbers, global calls and manual transfer to extension nodes.

IV. THE PRIOR ART REJECTIONS

The Examiner alleges that Shima, when combined with Akatsu, renders obvious claims 1-7, 10, and 11, and, when combined with Ho, renders obvious claims 8 and 9.

Applicant continues to respectfully disagree.

First, relative to the rejection for claims 1 and 7, the present invention incorporates a memory in the extension node terminal that stores the physical identifiers *and* telephone numbers of the gateway node and the extension nodes in the system.

In contrast, as clearly described at lines 5-7 of column 5, the telecommunications system taught in Shima has a single telephone number for the entire multimedia network 100 attached to the peripheral device 230. The method for signal distribution in Shima is clearly described at line 19 of column 3 as being "multiple logical connections," a concept quite different from separate telephone numbers. The Examiner's reliance on lines 4-46 of column 7 is misplaced, since these

lines do not describe multiple simultaneous calls using separate telephone numbers. Rather, these lines clearly describe a scheme to allocate bandwidth for the incoming calls. This problem is entirely different from that of stating that each extension node selectively (potentially) is associated with its unique telephone number, thereby allowing each such node to serve as a stand-alone telephone node.

The Examiner's reliance upon lines 16-20 of column 5 is also misplaced, since these lines clearly state that the peripheral device 230 can send an incoming call indication (e.g., a ring signal) to only those consumer electronics devices capable of receiving voice signals. Again, although it may be true that each such consumer electronics device might have a unique identification number within the network, this description is quite different from that of having each such consumer electronic device has a separate, unique telephone number, so that each such device can be separately called as a telephone number from another telephone.

Even if Shima were to be interpreted as having unique identification numbers for each terminal having voice capability, there is no suggestion whatsoever that these voice terminals can also call each other.

This feature that is not taught or suggested in Shima, Akatsu, or Ho. It is noted that an Examiner's prior art evaluation is bound to the plain meaning of the claim language, as would be interpreted by one having ordinary skill in the art. More specifically, the initial burden has not been met unless the Examiner is able to point to this feature of the present invention as being found in the prior art of record.

Although Shima provides the capability for a telephone interface with the multimedia network 100, this capability is for a single number for the entire network (e.g., see lines 5-9 of column 5), so that any multimedia device having a telephone interface incorporated therein can receive/originate telephone communications, using the single telephone number that identifies the entire multimedia network 100.

This concept of Shima is quite different from that of the present invention in which each extension node can be a separately-identified telephone node with its own unique telephone number. The present invention thereby allows the various extension

nodes to call each other, similar to an intercom system, in addition to placing and receiving telephone calls to and from telephones on the external telephone system, using the unique telephone number assigned to that extension node.

Hence, turning to the clear language of claim 1, there is no teaching or suggestion of: "... one or more extension nodes, each identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number ... wherein stream data transferred on said serial bus are exchanged through said gateway between an outside line and an extension node, or between a first extension node and a second extension node, wherein at least one said extension node comprises: a control/ memory unit for storing physical identifiers and telephone numbers of said gateway node and extension nodes and for controlling said network, thereby allowing said at least one extension node to transmit and receive stream data from outside telephone numbers and from telephone numbers of other extension nodes...."

Independent claims 5, 6, and 7 have similar language to describe this concept of individual telephone numbers assigned to each extension node and the capability to intercommunicate between extension nodes, rather than a multimedia network in its entirety.

Relative to the rejection currently of record for claim 6, the rejection fails to properly point to a terminal device in Shima having two asynchronous interfaces and two isochronous interfaces, one each for a telephone and television set, in combination with a unique telephone number. That is, if the Examiner wishes to rely upon the concept of integration into a single unit, then he cannot arbitrarily declare that certain aspects are considered obvious to integrate but other aspects are considered obvious to segregate.

Relative to the rejection currently of record for claims 8 and 9, this rejection ignores the following evaluation guideline of MPEP 2141.02: "*In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is*

not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." (Emphasis in MPEP itself)

It is again submitted that Ho is not properly combinable with Shima, since the secondary reference Ho is intended for an environment that has no central controlling processor. Shima clearly uses peripheral device 230 as the central controlling processor and would not, therefore, require or benefit from the technique of Ho in order to hunt for attached resources. The Examiner cannot simply ignore the technical realities and engineering of the prior art references.

In his response in Paragraph 5 on page 3 of the Office Action, the Examiner seems to miss the significance that the methods therein are specifically addressing a distributed control system, as clearly described at lines 18-22 of column 2. The Examiner cannot simply impose these methods into either a distributed control environment or a central control environment, when the reference clearly presents them as appropriate in the distributed control environment, thereby clearly teaching against the urged combination.

Moreover, should the Examiner continue to maintain Official Notice for claim 8, it requested that a reasonable reference properly combinable with Shima be presented. It is noted that Shima, even if the "multiple logical connections" terminology in line 19 of column 3 were recognized as the method of selecting the various devices on the bus, it is clearly described at lines 6-7 of column 5 that a single telephone number services the entire multimedia network 100. As such, conventional methods of unicast, global call-in, and caller ID would clearly not apply in an environment having a single telephone number.

Moreover, should the Examiner maintain the Official Notice for claim 15, it is requested that a reasonable reference, properly combinable with Shima, be presented providing the implementation described in the claim.

It is also submitted that Glowney, should the Examiner wish to continue to use it as a prior art reference of a formal rejection, would be disqualified as prior art against the present Application, upon filing a verified translation, because its US filing

date is June 8, 1999, and the present Application has a foreign priority date of April 7, 1999.

For the reasons stated above, the claimed invention is fully patentable over the cited references.

Further, the other prior art of record has been reviewed, but it too, even in combination with Shima, Akatsu, or Ho, fails to teach or suggest the claimed invention.

V. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-20, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 2/2/05

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